

1975

## Environmental Science Units

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in the powder beneath the plate. This demonstration indicates that the air below the plate transmitted sound from the vibrating plate to the powdered surface below the plate. For other ideas, read the reference below from which this article was adapted.

### Reference

Protheroe, D. W. 1968. Making sound visible. *Science and Children* 5(7): 19-21.

### Editorial note:

Ernst Chladni, a German physicist, was born in 1756 and died in 1827. His education was originally in law but when his father died he pursued his natural interests in science and music. As a result of his interest he began to investigate sound waves mathematically. Chladni was the first to work out the quantitative relationship governing sound transmission and thus became the father of the modern science of acoustics.

Chladni figures fascinated audiences in Paris in 1809 and Napoleon had the demonstrations repeated at a command performance. Chladni invented a musical instrument called a euphonium and he also collected meteorites. Chladni was one of the first scientists to insist that meteorites fell from the heavens.

Booklets entitled, *Hi-Ho Projects*, filled with activities such as in this article can be obtained from the ISEA, Attention: Dick Sweeney, IPD Specialist. The booklets were prepared by the author for use in the ISEA Mobile In-Service Training Labs.

### Environmental Science Units

Additional information concerning the following teaching units may be obtained from the Minnesota Environmental Sciences Foundation, Inc., 5400 Glenwood Avenue, Minneapolis 55422.

### Grade Levels

Photography for Kids	(4-8)
Going Snowing	(3-8)
Making Snowshoes	(4-12)
Seeds to Cereal	(1-6)
Where are the Animals	(3-8)
Aquatic Study	(7-12)
Interdependence in the Environment	(K-6)
Environmental Education Activities	(1-6)

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